

Claims

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1. A communication system (100) including a communication network performing at least one communication with at least one subscriber unit (303) over a radio communication link (305), the communication system (100) having a plurality of different characteristics and characterized by comprising:
- means for transmitting dynamic system information relating to the status of the communication system (100) from the communication network to the at least one subscriber unit (303), and
- 10 the at least one subscriber unit (303) comprising means for receiving the dynamic system information and means for selecting a preferred value of at least one characteristic of the communication system (100) in response to the dynamic system information, and
- means for setting the at least one characteristic of the communication system (100) to said preferred value of the at least one characteristic.
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2. A communication system (100) as claimed in claim 1 wherein the at least one characteristic of the communication system (100) is a characteristic of the communication between the communication network and the at least one subscriber unit (303).
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3. A communication system (100) as claimed in claim 1 wherein the means for setting the at least one characteristic of the communication system (100) to said preferred value is located in the subscriber unit (303).
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4. A communication system (100) as claimed in claim 1 wherein the means for setting the at least one characteristic of the communication system (100) to said preferred value is located in the network.
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5. A communication system (100) as claimed in claim 1 wherein the dynamic system information is broadcast to all subscriber units (303).
6. A communication system (100) as claimed in any claim 1 wherein the dynamic system information is transmitted to a specific group of subscriber units (303).

7. A communication system (100) as claimed in any claim 1 wherein the dynamic system information is transmitted to individual subscriber units (303).

5 8. A communication system (100) as claimed in claim 1 wherein the dynamic system information transmitted includes a characteristic chosen from the group of

- A
- a) a traffic load,
 - b) a resource allocation,
 - c) a traffic mix,
 - 10 d) the location of the subscriber units (303),
 - e) the capabilities of subscriber units (303) active in the system,
 - f) the capabilities of the network,
 - g) the available resources of the network,
 - h) a tariff,
 - 15 i) availability of service providers,
 - j) capability of service providers,
 - k) availability of other communication systems,
 - l) capability of other communication systems, and
 - m) available services.

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9. A communication system (100) as claimed in claim 1 wherein the least one characteristic of the communication system (100) is chosen from the group of:

- a) time of communication,
- b) communication needs,
- 25 c) a prioritisation of communication,
- d) a communication format,
- e) an data rate,
- f) a service provider,
- g) a communication system,
- 30 h) a service, and
- i) a handover.

10. A communication system (100) as claimed in claim 1 wherein the subscriber units (303) further comprises means for presenting the dynamic system information to the user.
11. A communication system (100) as claimed claim 1 wherein
5 the subscriber units (303) further comprise means for receiving a user input and the at least one characteristic of the communication between the subscriber unit and the network is determined in response to this user input.
12. A communication system (100) as claimed in claim 1 wherein the subscriber units
10 (303) further comprise means for communicating the dynamic system information to an external device (309).
13. A communication system (100) as claimed in claim 1 wherein the subscriber units (303) further comprise means for receiving an input from an external device (303) and the
15 at least one characteristic of the communication system (100) is determined in response to this input from an external device (309).
14. A communication system (100) as claimed in claim 12 or 13 wherein the external device is a Smartcard.
- 20 15. A communication system (100) as claimed in claim 1 further comprising:
means for the subscriber unit (303) to request the network to change the at least one characteristic of the communication system (100), and
means for the network to change the at least one characteristic of the
25 communication system in response to said request.
16. A communication system (100) as claimed in claim 15 wherein a distribution of resource is changed
- 30 17. A communication system (100) as claimed in claim 16 wherein the communication system (100) uses a Code Division Multiple Access scheme and the

distribution of resource is changed by changing the allocation of spreading codes between the base stations.

18. A communication system (100) as claimed in claim 16 wherein the
5 communication system (100) uses a Frequency Division Multiple access scheme and the distribution of resource is changed by changing the allocation of frequencies between the base stations (301).

19. A communication system (100) as claimed in claim 1 which is a cellular mobile
10 communication system and the subscriber units (303) are mobile stations.

20. A communication system (100) as claimed in claim 19 which is a GSM cellular mobile communication system.

15 21. A method of modifying communication in a communication system (100) including a communication network performing at least one communication with at least one subscriber unit (203) over a radio communication link (305), the communication system having a plurality of different characteristics, said method being characterized by comprising the steps of:

20 transmitting dynamic system information relating to the status of the communication system (100) from the communication network to the at least one subscriber unit (303), and

receiving the dynamic system information and selecting a preferred value of at least one characteristic of the communication system (100) in response to the dynamic
25 system information at the at least one subscriber unit (303), and

setting the at least one characteristic of the communication system (303) to said preferred value of the at least one characteristic.

22. A method of modifying communication in a communication system (100) as
30 claimed in claim 21 wherein the dynamic system information is broadcast to the subscriber units (203).

23. A method of modifying communication in a communication system (100) as claimed in claim 21 wherein the dynamic system information transmitted includes a characteristic chosen from the group of

- A
- a) a traffic load,
 - 5 b) a resource allocation,
 - c) a traffic mix,
 - d) the location of the subscriber units (303),
 - e) the capabilities of subscriber units active in the system,
 - f) the capabilities of the network,
 - 10 g) the available resources of the network,
 - h) a tariff,
 - i) availability of service providers,
 - j) capability of service providers,
 - k) availability of other communication systems,
 - 15 l) capability of other communication systems, and
 - m) available services.

24. A method of modifying communication in a communication system (100) as claimed in claim 21 wherein the at least one characteristic of the communication system is
20 chosen from the group of:

- a) time of communication,
 - b) communication needs,
 - c) a prioritisation of communication,
 - d) a communication format,
 - 25 e) an data rate,
 - f) a service provider,
 - g) a communication system,
 - h) a service, and
 - i) a handover.
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25. A method of modifying communication in a communication system (100) as claimed in claim 21 further comprising the step of communicating the dynamic system information to an external device (309).